

MCCALL HATCHERY

ANNUAL REPORT

January 1, 1991 to December 31, 1991

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INTRODUCTION

McCall Hatchery is designed primarily to produce summer chinook salmon. However, McCall Hatchery is also responsible for a resident fisheries program. This consists of operating a fish trap for the collection of westslope cutthroat trout eggs, production of cutthroat and rainbow trout fry, stocking of high mountain lakes in Regions 1, 2, and 3, and redistribution of catchable rainbow trout.

Funding for these resident fisheries programs is provided by Idaho Department of Fish and Game for the period April 1 to September 30 annually.

FISH PRODUCTION

McCall Hatchery produced westslope cutthroat trout and rainbow trout to fry size mainly for stocking into high mountain lakes. The majority of these fish are distributed within **six** months. Westslope cutthroat are obtained from the naturalized broodstock at Fish Lake and the rainbow as eyed eggs usually from Mt. Lassen Trout Farms, Red Bluff, California. Fish Lake is located approximately six miles west of McCall.

The westslope cutthroat production went well. The only problem encountered was leaking an unknown number of sac fry out of the incubators.

The 75,000 eyed rainbow eggs received from Mt. Lassen performed well with no problems encountered.

This was the second year of net pen production in Payette Lake. In August 1990, 20,000 westslope cutthroat were transferred from McCall Hatchery to Mackay Hatchery to overwinter. These fish were transferred back to McCall and stocked into the two net pens in May 1991. Approximately 3,000 of these fish were lost due to elevated water temperatures and low dissolved oxygen levels. In 1992, deeper nets will be used to allow the fish access to cooler water. This program is funded mainly through the Payette Lake Net Pen Association. Hatchery personnel provided technical advice and most of the manual labor. See Table 1 for production results.

Bioproducts Bio-Diet Starter and Grower diets were used exclusively this year for the rainbow and cutthroat. A total of 1,276 pounds of food was fed at a cost of \$949 to produce 1,152 pounds of fish for a conversion of 1.11.

HATCHERY IMPROVEMENTS

There were no hatchery improvement projects to the resident facilities at McCall Hatchery during 1990. In June, the Payette Lake Net Pen Association, with volunteer labor, built a pier and dock to house the two net pens in Payette Lake. This is located one block from *downtown* and just north of the Sports Marina.

FISH HEALTH

Pathological inspections were done on the Fish Lake broodstock and the fry stocked back into Fish Lake. No pathogens were detected in either group.

Pennask rainbow in Little Payette Lake are being considered for a naturalized broodstock. Fifteen of the 26 fish captured from the spawning run were positive for *R. Salmoninarum* (Bacterial Kidney Disease). Further sampling was done in October using gill nets in the main lake. This group also showed high prevalence of BKD with 37/60, or 62% BKD positive. Further investigation is warranted before these fish are utilized as broodstock.

FISH STOCKED AND TRANSFERRED

McCall Hatchery planted approximately 30 different lakes and rivers with catchable rainbow trout. All of these catchable rainbow trout are produced at American Falls Hatchery and transferred to McCall Hatchery for redistribution. The total number planted out of McCall Hatchery decreased this year because a few systems were changed to manage for wild trout production.

Over 200 high mountain lakes were stocked this year, mainly with rainbow and westslope cutthroat produced at McCall Hatchery. The majority of these lakes were planted by air, but a few were backpacked. A lot of backpacking help was provided by volunteers. Grayling were also planted in high mountain lakes. These fish were transferred from Ashton Hatchery.

The only fish transferred out of McCall were 86,000 westslope cutthroat. These went to Mackay Hatchery for high mountain lakes and for the 1992 Payette Lake net pens. See Table 2 for fish transfers.

SPAWNTAKING OPERATION

Fish Lake is located approximately six miles west of McCall. The trap was operated from April 15 to May 28. A total of 1,355 westslope cutthroat trout were trapped; 536 males and 819 females. In order to maintain a diverse gene pool, the practice of culling out individual fish exhibiting rainbow

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characteristics was drastically curtailed this year. Only individuals exhibiting extreme rainbow characteristics or deformities were culled. Of the 819 females, 12 were culled due to exhibition of rainbow characteristics or deformities. The 807 westslope females spawned produced a total green egg take of 775,000 eggs. A summary of spawntaking results is presented in Table 3.

The westslope cutthroat stocked back into Fish Lake for future broodstock have been fin clipped since the 1986 plant. Of the 1,355 returning adults in 1991, only 62 (4.6%) fin clipped fish returned to the trap. This may indicate much heavier recruitment to the population from natural production than from hatchery plants or the fins are regenerating.

OTHER PROJECTS

The Pennask rainbow in Little Payette Lake are being considered as a naturalized broodstock population. Hatchery personnel walked Lake Fork Creek, tributary to Little Payette Lake, two to three times a week to determine the numbers in the spawning run. We also attempted to count redds, but Lake Fork Creek has very little periphyton making an accurate count virtually impossible. Disease samples were also collected at this time. McCall Subregion fisheries personnel provided some assistance.

Hatchery personnel set a fish trap in Lake Fork Creek above Cascade Reservoir to determine the number of coho salmon spawning in that system. These coho have been imprinted on morpholine so a drip was used prior and during the trapping operation. Only three coho reached the trap. No disease samples were taken.

PUBLIC RELATIONS

McCall Hatchery gets several hundred visitors and several large school tours each year. Hatchery personnel also gave presentations to the Chamber of Commerce, Rotary, Boy Scouts, Girl Scouts, and Ponderosa Park. Some of these were combined with a fish plant.

The net pen operation is becoming a major tourist attraction. Several hundred people visited the nets in 1991. A gumball machine that will dispense fish food will be added in 1992 to allow these visitors to feed the fish. This will also pay for the cost of the food.

Table 1. Total production at McCall Hatchery, 1991.

Species	Eyed eggs received	Fish produced	Pounds produced	Cost per pound	Cost per fish
Westslope Cutthroat	727,335	479,400	895	37.65	0.079
Mt. Lassen Rainbow	75,000	66,500	257	36.98	0.078
Total	802,335	545,900	1,152	37.50	0.079

Table 2. Fish distribution.

Species	Number transferred in	Number transferred out	Number planted out
Westslope Cutthroat		86,000	393,400
Mt. Lassen Rainbow			66,500
Catchable Rainbow	90,773		84,481
Golden	19,700		19,700

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Table 3. Result of westslope cutthroat spawntake, Fish Lake,
McCall Hatchery, 1990.

<u>Species</u>	<u>Females</u> <u>Spawned</u>	<u>Number</u> <u>green eq^s</u>	<u>Percent</u> <u>eve-up</u>	<u>Number</u> <u>eyed eqqs</u>	<u>Average</u> <u>fecundity</u>
Westslope Cutthroat	807	775,000	93.9	727,335	960